Remarks

In the non-final Office Action mailed October 28, 2008, the Examiner: (i) rejected claims 1-3, 5-8, 10-12, 15-19 and 22 under 35 U.S.C. 103(a) as being unpatentable over Bhogi et al (US 2004/0088413 A1) in view of Yamada et al (US 5,365,582); (ii) rejected claim 13 under 35 U.S.C. 103(a) as being unpatentable over Bhogi in view of Yamada and further in view of Mousseau et al (US 2004/0078495); (iii) rejected claim 14 under 35 U.S.C. 103(a) as being unpatentable over Bhogi in veiw of Yamada and further in view of Chong et al (US 2004/0064552 A1); and (iv) rejected claims 23-25 under 35 U.S.C. 103(a) as being unpatentable over Bhogi in view of Yamada and further in view of Desai (US 2004/0221031 A1).

I. Rejections under Sections 102 and 103

A. The proposed combinations fail to teach or suggest all claim elments.

A reference can only anticipate a claimed invention if that reference teaches each and every element of the claim. *MPEP § 2131.* Similarly, a combination of references can only obviate an invention if the suggested combination teaches or suggests all of the claimed limitations. *MPEP § 2142.* Put another way, if none of the references teach or suggest a particular limitation, then no combination of those references can anticipate or obviate the claimed inventions.

1. Claim 1

The Examiner rejected Claim 1 as obvious in view of U.S. Patent Publication 2004/0088413 to Bhogi et al ("Bhogi") in view of U.S. Patent No. 2004/088413 to Yamada. Applicant respectfully traverses.

a. *Bhogi*

In addition to those elements identified in Applicant's previous response, which Applicant hereby incorporates by reference, Applicant also respectfully asserts that Bhogi fails to teach "in response to the heuristic timer interrupt event . . .adding new connections to the connection pool if the current connection pool size is less than the specified maximum number of connections associated with the current time of day." More specifically, as explained in Applicant's Summary section, the claimed invention is directed at extension to the connection pooling architecture to apply heuristic data to ensure that the connection pool contains the required number of connections for a given time period. This can improve the performance for applications that use connection pooling architectures, such as Java Database Connectivity ("JDBC") and Java 2 Connector ("J2C") connections; by attempting to predict when increased connections will be necessary, the pool can populate itself with new connections during periods of lower workload instead of consuming system resources after the workload has begun to increase.

Bhogi, in contrast, is directed at a much different problem, namely that when an administrator wants to change the configuration of a connection pool, they must destroy the pool. *Bhogi,* ¶ *[0008].* As Bhogi explains:

> Changing the configuration of the connection pool (e.g. to change the pool size or other parameters) may require destroying the pool and reinitializing it with new parameters. This procedure may also entail rebooting the computer on which the connection pool resides. Therefore, reconfiguring a connection pool may require the destruction of all connections within the pool at a minimum. For complex systems with a large number of clients, there may be no time at which one or more connections are not in use. Reconfiguring the connection pool may disrupt service to any clients that are currently using connections. This disruption of client services may be of significant duration, particularly if a reboot of the application server is required.

Id. Bhogi then goes on to describe a 'dynamically configurable' (i.e., changeable without having to reboot') resource pool. As a result of this focus, however, Bhogi never addresses

Docket No.: ROC920030351US1
Serial No.: 10/767,043   10

the key point of the present invention, namely generating and/or applying heuristic override information to ensure that the connection pool contains the required number of connections for a given time period. Put more simply, Bhogi may be a component used by the present invention, but does not teach or suggest the elements identified above.

With this difference in mind, Applicant notes that the Examiner relies exclusively on Bhogi, paragraph [0048] and steps 810 and 815 in Figure 8 to show this aspect. Applicant notes that Figure 8 is a continuation of Figure 4 (via the "B" link), which makes clear that steps 810 and 815 occur in response to a resource request. Thus, in context, Bhogi does not add new connections "in response to the heuristic timer interrupt event" as specifically recited in claim 1. Instead, Bhogi appears to be merely teaching the conventional "time-out" approach described in Applicant's Background Section. As noted in Applicant's Background section, however, "this technique does not work well for applications that do not have a static load, because, when the load again increases, the number of connections currently in the pool will not be sufficient. Connections then have to be created as required, and client applications incur this creation cost."

b. Yamada

Yamada also fails to teach or suggest these elements. Instead, Yamada is directed at a telephone switch for a call center. *Yamada, col. 1, lines 1-5.* To avoid unnecessary hold times, Yamada can direct incoming calls to a plurality of different numbers based on each terminal's free/busy status. *E.g., Id. at col. 2, lines 20-30 and 35-45.*

Although not specifically relying on Yamada for the identified element, the Examiner does extensively reference the "fifth aspect" of this reference. That aspect is an extension to a "fourth aspect," in which calls are directed to the closest call center, geographically, in order to reduce telephone charges. *Id. at col. 6, lines 27-39.* The fifth aspect merely adds the additional feature that the system administrator may increase or decrease the volume of calls

going to a particular call center by time of day, presumably to match employee staffing. *Id at col. 6, lines 40-54.* Significantly, however, there is no discussion anywhere in Yamada of actually increasing or decreasing the computing resources anywhere in the system. Instead, Yamada merely discloses a load balancer for incoming telephone calls. It is thus completely silent about "adding new connections to the connection pool if the current connection pool size is less than the specified maximum number of connections associated with the current time of day," much less doing so "in response to the heuristic timer interrupt event."

B. *Claims 7, 15, and 18*

Applicant respectfully submits that these claims contain language similar to that discussed above. Accordingly, Applicant respectfully asserts that the combination of Bhogi and Yamada also fails to obviate these claims.

C. *Claims 2-3, 5-6, 8, 10-12, 14, 16-17, and 19*

The claims are dependent on claim 1, 7, 15, or 18. Accordingly, Applicant submits they are not obviated by Bhogi in view of Yamada for the reasons previously discussed.

D. *Claims 13, 14, and 22-23*

In Section III(A), Applicant identified a number of elements not taught or suggested by Bhogi and Yamada. Mousseau also fails to teach or suggest these elements. Instead, Mousseau is directed at a J2EE connector architecture and is silent about the details of connection pool management.

Chong also fails to teach or suggest these elements. Instead, Chong is directed at performance management and is silent about the details of connection pool management.

B. There would be no motivation to make the proposed combinations

The present invention is generally related to methods and systems for increasing and decreasing the computing resources dedicated to a particular task, such as data source connection pools using heuristic information. Applicant respectfully submits that Yamada, Mousseau, and Chong are directed at completely different problems. In Yamada, for example, the time of day settings are directed at reducing telephone charges and matching staffing levels. There is simply no discussion of increasing or decreasing the number of switches, etc used in the system. Similarly, as discussed above, Mousseau is directed at a J2EE connector architecture and Chong is directed at performance management, and neither discusses the details of connection pool management,

For at least these reasons, Applicant respectfully submits that there would be no motivation to make the proposed combinations.
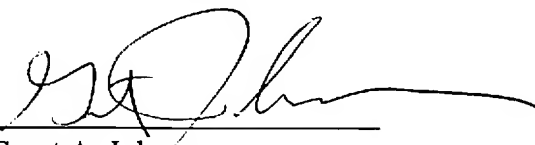

II. Miscellaneous Amendments

Applicant has made a number of amendments to better protect the invention in the marketplace, namely: (i) clarifying that the claims are directed at a connection pool for a data source, and (ii) changing the dependencies for a number of claims. Applicant respectfully submits that these amendments are not related to patentability.

III. Conclusion

It is believed that the present application is in condition for allowance and a prompt and favorable allowance of all claims is respectfully requested. If the Examiner, upon considering this amendment, thinks that a telephone interview would be helpful in expediting allowance of the present application, he/she is respectfully urged to call the Applicant's attorney at the number listed below.

Respectfully submitted,

By: _____

Grant A. Johnson
Registration No.: 42,696

Telephone: (507) 253-4660
Fax No.:   (507) 253-2382

Docket No.:   ROC920030351US1
Serial No.:   10/767,043   14